IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Robert R. Keller	**CONFIRMATION NO. 4224**
Appln. No.: 09/997,892	This Request for Certificate of Correction was electronically filed using the U.S. Patent and Trademark Office's EFS Web
Filed: November 30, 2001	
Title: **METHOD AND APPARATUS FOR AUTOMATICALLY ESTABLISHING CONTROL VALUES FOR A CONTROL DEVICE**	

Patent No.: 7,405,530 B2	
Issued: July 29, 2008	
Attorney Docket No. 5569/72312 (01-51)	
Customer No. 22242	

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

ATTENTION: Certificate of Correction Branch
Office of Patent Publication

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT

Sir:

In accordance with 37 C.F.R. § 1.323, the above-specified patentees, through their attorneys, respectfully request that a Certificate of Correction be issued for the above-referenced patent to correct the following errors.

The exact page and line number where the errors occurred in the application file are:

IN THE CLAIMS:

Claim 11, Column 7, Line 53; Change "substantially unloaded" to - - less than fully loaded - - (Amendment Dated August 12, 2003);

Claim 28, Column 8, Line 60; Change "and" to - - an - - (Amendment Dated August 12, 2003);

Claim 28, Column 8, Line 61; delete "substantially" (Amendment Dated August 12, 2003);

Claim 28, Column 8, Line 60; Change "and" to - - an - - (Amendment Dated August 12, 2003);

Claim 28, Column 8, Line 60; after "to" insert - - about - - (Amendment Dated August 12, 2003);

Claim 32, Column 9, Line 24; Change "substantially unloaded" to - - less than fully loaded - - (Amendment Dated August 12, 2003);

Claim 32, Column 9, Lines 24-25; Change "an ordinarily loaded" to - - a more than fully loaded - - (Amendment Dated August 12, 2003);

Claim 42, Column 10, Line 60; After "specific" insert - - intermediate - - (RCE/Response and Amendment Dated December 12, 2006).

REMARKS

The above-requested changes result from errors which occurred during printing of the patent. Attached hereto is Form PTO/SB/44 incorporating the requested changes.

In accordance with procedures set forth in the notice entitled "Expedited Issuance of Certificates of Correction When the Error is Attributable to the United States Patent and Trademark Office," Patentees submit herewith copies of the following supporting documentation: (1) Amendment Date August 12, 2003, and (2) RCE/Amendment and Response dated December 12, 2006, so that this request can be processed without the patent file.

A Certificate of Correction (Form #PTO 1050) incorporating all of the above changes is enclosed. As these mistakes include errors on the part of the Patentees, please charge our deposit account, Deposit Account No. 06-1135, in the amount of $100.00 to cover the required fee. Should this calculation be incorrect, please charge any additional fee or credit any overpayment to our Deposit Account No. 06-1135.

Please send the Certificate to:

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Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

Date: Oct 31, 2008 By: _____

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln No.: 09/997,892
Applicants: Robert R. Keller, Jr.
Filed: November 11, 2001
For: METHOD AND APPARATUS FOR AUTOMATICALLY ESTABLISHING CONTROL VALUES FOR A CONTROL DEVICE
TC/A.U.: 2837
Examiner: Tyrone W. Smith

Docket No.: 72312
Customer No.: 22242

Confirmation No. 4224

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this date.

8/12/03
Date

Steven G. Parmelee
Registration No. 28,790
Attorney for Applicant(s)

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In response to the Office Action dated May 12, 2003 as entered in the above captioned matter, the Applicant respectfully submits the following Amendment and Response.

Amendments to the Claims are reflected in the listing of claims which begin on page 2 of this paper.

Remarks/Arguments begin on page 10 of this paper.

AMENDMENTS TO THE CLAIMS

1. (Original) A method for use with a barrier controller having a force control that has a user manipulable setting range having a first end and a second end, comprising:
- initiating a learning mode;
- operating a motor;
- measuring at least one parameter that corresponds to operation of the motor to provide a parameter value;
- using the parameter value to establish a specific force control value;
- assigning the specific force control value to a specific location of the user manipulable setting range for the force control.

2. (Original) The method of claim 1 and further comprising:
- concluding the learning mode; and
- using the specific force control value to correlate a particular user manipulated setting to a particular operational force control value.

3. (Original) The method of claim 1 and further comprising:
- assigning a maximum force control value to the second end of the user manipulable setting range for the force control.

4. (Original) The method of claim 3 wherein assigning a maximum force control value to the second end of the user manipulable setting range for the force control includes using the specific force control value to calculate the maximum force control value.

5. (Original) The method of claim 3 wherein assigning a maximum force control value to the second end of the user manipulable setting range for the force control includes using a previously stored maximum force control value.

6. (Original) The method of claim 3 wherein assigning a maximum force control value to the second end of the user manipulable setting range for the force control includes using the specific force control value and other previously stored sensitivity control's values to identify the maximum force control value.

7. (Original) The method of claim 1 and further comprising disabling at least some barrier controller functions until the learning mode has been initiated at least one time.

8. (Original) The method of claim 1 and further comprising enabling at least one barrier control function upon concluding the learning mode.

9. (Original) The method of claim 1 and wherein initiating the learning mode includes actuating a user manipulable learning mode initiation switch.

10. (Original) The method of claim 9 wherein actuating the user manipulable learning mode initiation switch includes using a tool to access the user manipulable learning mode initiation switch.

11. (Currently Amended) The method of claim 1 wherein operating the motor includes operating the motor in a ~~substantially unloaded~~ less than fully loaded operating state.

12. (Original) The method of claim 1 wherein operating the motor includes operating the motor in an ordinary loaded operating state.

13. (Original) The method of claim 1 wherein measuring at least one parameter that corresponds to operation of the motor includes measuring a parameter that corresponds to speed of rotation of a drive axle of the motor.

14. (Original) The method of claim 13 wherein measuring a parameter that corresponds to speed of rotation of a drive axle of the motor includes measuring speed of rotation of the drive axle of the motor.

15. (Original) The method of claim 13 wherein measuring a parameter that corresponds to speed of rotation of a drive axle of the motor includes measuring speed of rotation of a rotating member that has a speed of rotation that varies with respect to speed of rotation of the drive axle of the motor as a function of a gear ratio.

16. (Original) The method of claim 1 wherein measuring at least one parameter that corresponds to operation of the motor includes measuring a parameter that corresponds to speed of movement of a barrier that is operably coupled to the motor.

17. (Original) The method of claim 1 and further comprising providing a visual signal to indicate initiation of the learning mode.

18. (Original) The method of claim 1 wherein measuring at least one parameter that corresponds to operation of the motor to provide a parameter value includes sensing electric pulses that correspond to operation of the motor.

19. (Original) The method of claim 18 wherein measuring at least one parameter that corresponds to operation of the motor to provide a parameter value further includes counting the electric pulses over a predetermined period of time to obtain an average number of pulses per window of time.

20. (Original) The method of claim 1 wherein using the parameter value to establish a specific force control value includes assigning the parameter value as the specific force control value.

21. (Original) The method of claim 1 wherein using the parameter value to establish a specific force control value includes modifying the parameter value in a predetermined way to provide a modified parameter value and assigning the modified parameter value as the specific force control value.

22. (Original) The method of claim 1 and further comprising assigning other force control values to other settings of the user manipulable setting range for the force control.

23. (Original) The method of claim 22 wherein assigning other force control values to other settings of the user manipulable setting range for the force control includes assigning the force control values to thereby establish a linear relationship between the assigned force control values with respect to the other settings of the user manipulable setting range.

24. (Original) The method of claim 22 wherein assigning other force control values to other settings of the user manipulable setting range for the force control include assigning the force control values to thereby establish a non-linear relationship between the assigned force control values with respect to the other settings of the user manipulable setting range.

25. (Original) The method of claim 1 wherein assigning the specific force control value to a specific location of the user manipulable setting range for the force control includes assigning the specific force control value to the first end of the user manipulable setting range for the force control.

26. (Original) The method of claim 25 and further comprising assigning a maximum force control value to the second end of the user manipulable setting range for the force control.

27. (Original) The method of claim 25 and further comprising using the specific force control value to calculate a maximum force control value.

28. (Currently Amended) The method of claim 27 wherein using the specific force control value to calculate a maximum force control value includes adding to the specific force control value ~~and~~ an amount ~~substantially~~ equal to about 10 percent of the specific force control value.

29. (Original) The method of claim 27 and further comprising assigning the maximum force control value to the second end of the user manipulable setting range for the force control.

30. (Original) A method for use with a movable object having a user manipulable force control that has a mechanical setting range having a lower limit and an upper limit, comprising:
- initiating a learning mode;
- automatically operating a motor for at least a predetermined period of time;
- measuring at least one parameter that corresponds to operation of the motor to provide a parameter value;
- using the parameter value to establish a specific force control value;
- assigning the specific force control value to a specific location of the mechanical setting range for the force control.

31. (Original) The method of claim 30 wherein automatically operating a motor includes automatically operating the motor under predetermined operating conditions.

32. (Currently Amended) The method of claim 31 wherein automatically operating the motor under predetermined operating conditions includes automatically operating the motor under one of:
- a ~~substantially unloaded~~ less than fully loaded operating condition; and
- ~~an ordinarily loaded~~ a more than fully unloaded operating condition.

33. (Original) The method of claim 30 wherein measuring at least one parameter that corresponds to operation of the motor includes measuring at least one parameter that corresponds to rotational output of the motor.

34. (Original) The method of claim 30 wherein assigning the specific force control value to a specific location of the mechanical setting range for the force control includes assigning the specific force control value to the lower limit of the mechanical setting range for the force control.

35. (Original) The method of claim 30 and further comprising using the specific force control value to identify other force control values.

36. (Original) The method of claim 35 and further comprising assigning at least some of the other force control values to specific locations of the mechanical setting range for the force control.

37. (Original) A method comprising:
- initiating a learning mode;
- automatically operating a device in response to initiating the learning mode;
- automatically measuring at least one parameter that corresponds to operation of the device to provide a parameter value;
- automatically using the parameter value to establish a specific control value;
- automatically assigning the specific control value to a specific location of a mechanical setting range for a control device;
- concluding the learning mode.

38. (Original) A barrier controller for use with a movable barrier, a motor operably coupled to move the movable barrier in response to commands from the barrier controller, and a sensor for sensing at least one parameter that corresponds to operation of the motor, the barrier controller comprising:

- a force control having a setting range; and
- a programmable controller that is programmed to:
    - operate the motor during a learning mode;
    - receive information regarding the at least one parameter from the sensor during the learning mode;
    - using the information to establish a specific force control value during the learning mode; and
    - assigning the specific force control value to a specific location of the mechanical setting range of the force control.

39. (Original) The barrier controller of claim 38 wherein the barrier controller further comprises learning mode actuation means for at least initiating the learning mode.

40. (Original) A barrier controller for use with a movable barrier, a motor operably coupled to move the movable barrier in response to commands from the barrier controller, and a sensor for sensing at least one parameter that corresponds to operation of the motor, the barrier controller comprising:
- force control means having a setting range for providing a signal that corresponds to a force control value;
- learning means for initiating a learning mode;
- operation means responsive to the learning means and operably coupled to the motor to cause operation of the motor during the learning mode;
- measurement means responsive to the sensor for measuring the at least one parameter during the learning mode;
- determination means responsive to the measurement means for using at least one measurement of the at least one parameter to establish a specific force control value;
- assignment means responsive to the determination means for assigning at least the specific force control value to a specific location of the setting range of the force control means.

41. (Original) The barrier controller of claim 40 wherein the determination means further determines other force control values.

42. (Original) The barrier controller of claim 41 wherein the assignment means further assigns at least some of the other force control values to specific locations of the setting range of the force control means.

REMARKS

1. Pursuant to the above noted office action, Claims 11, 28, and 32 were objected to as containing informalities. Claims 1-22 and 25-42 were rejected under 35 U.S.C. 103(a) given Miura (U.S. Patent No. 5,994,858) ("Miura") in view of Fitzgibbon et al. (U.S. Patent No. 6,172,475) ("Fitzgibbon"). Claims 23 and 24 were objected to as depending upon a rejected base claim. The Applicant hereby respectfully traverses these rejections and requests reconsideration.

2. Claims 11, 28, and 32 were objected to as including informalities. In Claim 11, the Examiner objects to the expression "substantially." The Applicant disagrees with the Examiner's contention and believes that the word "substantially" is not so vague as to render the claim non-compliant with the statutory requirements. Nevertheless, in the interests of expedited prosecution, the Applicant has revised Claim 11. In particular, instead of referring to a "substantially unloaded" operating state the claim now refers to a "less than fully loaded" operating state. Although admittedly broader, the Applicant respectfully submits that the Examiner's concerns regarding any potential uncertainty with respect to the word "substantially" has been traversed. In Claim 28, the Examiner objects to the word "substantially." Again, the Applicant disagrees with the Examiner's contention but has made a change in order to hopefully expedite review of this matter. In particular, Claim 28 has been amended to remove the word "substantially" and to insert the word "about" such that the latter alteration more clearly modifies the concept of "10%" rather than the concept of "equal." The Applicant respectfully submits that Claim 28 is now in suitable condition to support allowance. Claim 32 has been objected to both for the use of the word "substantially" and for the use of the word "ordinarily." Again, the Applicant respectfully disagrees with the Examiner's contention but has made changes in the interests of expedited prosecution. In particular, rather than referring to a "substantially unloaded operating condition," Claim 32 now refers to a "less than fully loaded operating condition." Similarly, rather than referring to an "ordinarily loaded" operating condition, Claim 32 now refers to a "more than fully unloaded" operating condition. Again, although admittedly broader following amendment, the Applicant respectfully submits that these claims are now more

than fully compliant with the statutory requirements regarding lack of vagueness and are in suitable condition to support allowance.

3. All of the claims, with the exception of Claims 23 and 24, were rejected under 35 U.S.C. 103(a) given Miura in view of Fitzgibbon. The Examiner cites Miura for disclosing an obstacle detection mechanism for use with a powered window wherein at least one parameter that corresponds to operation of the motor can be measured and utilized to establish a force control value for use during obstacle detection. Fitzgibbon is cited for its teachings regarding a moveable barrier operator having user manipulable up and down force-setting potentiometers. Examiner contends that an obvious combination of these two references yields the subject matter of the claims. The Applicant vigorously disputes this conclusion.

In particular, a combination of Miura with Fitzgibbon will result instead in an obstacle detection system that, during a learning mode, can automatically establish a force control value to be utilized during subsequent operation. In addition, that resultant structure will have one or more user manipulable potentiometers that permit a user to modify those automatically calculated force values. This, however, constitutes nothing more than the state of the prior art as is already acknowledged in the Applicant's Background section. More specifically, neither Miura or Fitzgibbon specifically disclose or even suggest the desirability of not only automatically determining or otherwise providing a force control value to use during subsequent operations but to also modify in any way the available user manipulable settings. It is only the Applicant's own teachings as set forth in the present application that make reference to any such approach, and those teachings cannot be properly applied in hindsight to purportedly render those same teachings as being obvious.

The above difference, so plainly lacking in either of the prior are references, either alone or in combination, is present throughout the various claims. For example, in Claim 1, the method provides for "measuring at least one parameter that corresponds to operation of the motor to provide a parameter value, using the parameter value to establish a specific force control value, [and] *assigning the specific force control value to a specific location of the user manipulable setting range for the force control*" [emphasis supplied]. Instead, the prior art provides only for automatically or otherwise establishing some force control values and

then providing a user manipulable mechanism for altering that automatically determined value as desired. This same pertinent distinction appears throughout the claims and serves to distinguish all of the claims from these two prior art references.

The Applicant therefore respectfully submits that Claims 1-42 are patentably distinguishable from the references of record and may be passed to allowance.

4. There being no other objections to or rejections of the claims, the Applicant respectfully submits that Claims 1-42 may be passed to allowance.

Respectfully submitted,

By: _____
Steven G. Parmelee
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Date: August 12, 2003

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln No.:	09/997,892
Applicant:	Robert R. KELLER, Jr.
Filed:	November 30, 2001
For:	METHOD AND APPARATUS FOR AUTOMATICALLY ESTABLISHING CONTROL VALUES FOR A CONTROL DEVICE
TC/A.U.:	2837
Examiner:	Tyrone W. SMITH
Docket No.:	72312
Customer No.:	22242

Confirmation No. 4224

This document was electronically filed using the USPTO's EFS-Web.

AMENDMENT AND RESPONSE

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Applicants hereby petition under 37 CFR §1.136(a) in the above-captioned application for a two-months extension of time up to and including December 12, 2006, to make this reply timely.

In response to the Office Action mailed July 12, 2006 as entered in the above-captioned matter, the Applicant respectfully submits the following amendment and response.

Amendments to the Claims are reflected in the listing of claims which begin on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper.

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 22-24, 30, 36-38, 40, and 42 as set forth below. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A method for use with a barrier controller having a physical user interface manipulable by a user through a corresponding physical setting range having a first end, ~~and~~ a second end, and at least one specific intermediate position between the first end and the second end, comprising:

initiating a learning mode;

operating a motor;

measuring at least one parameter that corresponds to operation of the motor to provide a parameter value;

using the parameter value to establish a specific force control value;

assigning the specific force control value to a specific location of the physical setting range for the force control.

2. (Original) The method of claim 1 and further comprising: concluding the learning mode; and using the specific force control value to correlate a particular user manipulated setting to a particular operational force control value.

3. (Previously presented) The method of claim 1 and further comprising: assigning a maximum force control value to the second end of the physical setting range for the force control.

4. (Previously presented) The method of claim 3 wherein assigning a maximum force control value to the second end of the physical setting range for the force control includes using the specific force control value to calculate the maximum force control value.

5. (Previously presented) The method of claim 3 wherein assigning a maximum force control value to the second end of the physical setting range for the force control includes using a previously stored maximum force control value.

6. (Previously presented) The method of claim 3 wherein assigning a maximum force control value to the second end of the physical setting range for the force control includes using the specific force control value and other previously stored sensitivity control's values to identify the maximum force control value.

7. (Original) The method of claim 1 and further comprising disabling at least some barrier controller functions until the learning mode has been initiated at least one time.

8. (Original) The method of claim 1 and further comprising enabling at least one barrier control function upon concluding the learning mode.

9. (Original) The method of claim 1 and wherein initiating the learning mode includes actuating a user manipulable learning mode initiation switch.

10. (Original) The method of claim 9 wherein actuating the user manipulable learning mode initiation switch includes using a tool to access the user manipulable learning mode initiation switch.

11. (Original) The method of claim 1 wherein operating the motor includes operating the motor in a substantially unloaded operating state.

12. (Original) The method of claim 1 wherein operating the motor includes operating the motor in an ordinary loaded operating state.

13. (Original) The method of claim 1 wherein measuring at least one parameter that corresponds to operation of the motor includes measuring a parameter that corresponds to speed of rotation of a drive axle of the motor.

14. (Original) The method of claim 13 wherein measuring a parameter that corresponds to speed of rotation of a drive axle of the motor includes measuring speed of rotation of the drive axle of the motor.

15. (Original) The method of claim 13 wherein measuring a parameter that corresponds to speed of rotation of a drive axle of the motor includes measuring speed of rotation of a rotating member that has a speed of rotation that varies with respect to speed of rotation of the drive axle of the motor as a function of a gear ratio.

16. (Original) The method of claim 1 wherein measuring at least one parameter that corresponds to operation of the motor includes measuring a parameter that corresponds to speed of movement of a barrier that is operably coupled to the motor.

17. (Original) The method of claim 1 and further comprising providing a visual signal to indicate initiation of the learning mode.

18. (Original) The method of claim 1 wherein measuring at least one parameter that corresponds to operation of the motor to provide a parameter value includes sensing electric pulses that correspond to operation of the motor.

19. (Original) The method of claim 18 wherein measuring at least one parameter that corresponds to operation of the motor to provide a parameter value further includes counting the electric pulses over a predetermined period of time to obtain an average number of pulses per window of time.

20. (Original) The method of claim 1 wherein using the parameter value to establish a specific force control value includes assigning the parameter value as the specific force control value.

21. (Original) The method of claim 1 wherein using the parameter value to establish a specific force control value includes modifying the parameter value in a predetermined way to provide a modified parameter value and assigning the modified parameter value as the specific force control value.

22. (Currently amended) The method of claim 1 and further comprising assigning other force control values to ~~other~~ settings of the at least one specific intermediate position of the physical setting range for the force control.

23. (Currently amended) The method of claim 22 wherein assigning other force control values to ~~other~~ settings of the at least one specific intermediate position of the physical setting range for the force control includes assigning the force control values to thereby establish a linear relationship between the assigned force control values with respect to the ~~other~~ settings of the at least one specific intermediate position of the physical setting range.

24. (Currently amended) The method of claim 22 wherein assigning other force control values to ~~other~~ settings of the at least one specific intermediate position of the physical setting range for the force control includes assigning the force control values to thereby establish a non-linear relationship between the assigned force control values with respect to the ~~other~~ settings of the at least one specific intermediate position of the physical setting range.

25. (Previously presented) The method of claim 1 wherein assigning the specific force control value to a specific location of the physical setting range for the force control includes assigning the specific force control value to the first end of the physical setting range for the force control.

26. (Previously presented) The method of claim 25 and further comprising assigning a maximum force control value to the second end of the physical setting range for the force control.

27. (Original) The method of claim 25 and further comprising using the specific force control value to calculate a maximum force control value.

28. (Original) The method of claim 27 wherein using the specific force control value to calculate a maximum force control value includes adding to the specific force control value and amount substantially equal to 10 percent of the specific force control value.

29. (Previously presented) The method of claim 27 and further comprising assigning the maximum force control value to the second end of the physical setting range for the force control.

30. (Currently amended) A method for use with a movable object having a user manipulable force control that has a physical user interface manipulable by a user through a corresponding mechanical setting range having a lower limit, ~~and~~ an upper limit, and at least one specific intermediate position between the lower limit and the upper limit, comprising:

initiating a learning mode;

automatically operating a motor for at least a predetermined period of time;

measuring at least one parameter that corresponds to operation of the motor to provide a parameter value;

using the parameter value to establish a specific force control value;

assigning the specific force control value to a specific location of the mechanical setting range for the force control.

31. (Original) The method of claim 30 wherein automatically operating a motor includes automatically operating the motor under predetermined operating conditions.

32. (Original) The method of claim 31 wherein automatically operating the motor under predetermined operating conditions includes automatically operating the motor under one of: a substantially unloaded operating condition; and an ordinarily loaded operating condition.

33. (Original) The method of claim 30 wherein measuring at least one parameter that corresponds to operation of the motor includes measuring at least one parameter that corresponds to rotational output of the motor.

34. (Original) The method of claim 30 wherein assigning the specific force control value to a specific location of the mechanical setting range for the force control includes assigning the specific force control value to the lower limit of the mechanical setting range for the force control.

35. (Original) The method of claim 30 and further comprising using the specific force control value to identify other force control values.

36. (Currently amended) The method of claim 35 and further comprising assigning at least some of the other force control values to specific intermediate locations of the mechanical setting range for the force control.

37. (Currently amended) A method for use with a barrier controller having a physical user interface manipulable by a user through a corresponding physical setting range having a first end, ~~and~~ a second end, and at least one specific intermediate position between the first end and the second end, comprising:

initiating a learning mode;

automatically operating a device in response to initiating the learning mode;

automatically measuring at least one parameter that corresponds to operation of the device to provide a parameter value;

automatically using the parameter value to establish a specific control value;

automatically assigning the specific control value to a specific location of the physical setting range for a control device;

concluding the learning mode.

38. (Currently amended) A barrier controller for use with a movable barrier, a motor operably coupled to move the movable barrier in response to commands from the barrier controller, and a sensor for sensing at least one parameter that corresponds to operation of the motor, the barrier controller having a physical user interface manipulable by a user through a corresponding physical setting range having a first end, ~~and~~ a second end, and at least one specific intermediate position between the first end and the second end, the barrier controller comprising:

a force control having the physical setting range; and

a programmable controller that is programmed to:

operate the motor during a learning mode;

receive information regarding the at least one parameter from the sensor during the learning mode;

using the information to establish a specific force control value during the learning mode; and

assigning the specific force control value to a specific location of the physical setting range of the force control.

39. (Original) The barrier controller of claim 38 wherein the barrier controller further comprises learning mode actuation means for at least initiating the learning mode.

40. (Currently amended) A barrier controller for use with a movable barrier, a motor operably coupled to move the movable barrier in response to commands from the barrier controller, and a sensor for sensing at least one parameter that corresponds to operation of the motor, the barrier controller having a physical user interface manipulable by a user through a corresponding physical setting range having a first end, ~~and~~ a second end, and at least one specific intermediate position between the first end and the second end, the barrier controller comprising:

force control means having the physical setting range for providing a signal that corresponds to a force control value;

learning means for initiating a learning mode;

operation means responsive to the learning means and operably coupled to the motor to cause operation of the motor during the learning mode;

measurement means responsive to the sensor for measuring the at least one parameter during the learning mode;

determination means responsive to the measurement means for using at least one measurement of the at least one parameter to establish a specific force control value;

assignment means responsive to the determination means for assigning at least the specific force control value to a specific location of the physical setting range of the force control means.

41. (Original) The barrier controller of claim 40 wherein the determination means further determines other force control values.

42. (Currently amended) The barrier controller of claim 41 wherein the assignment means further assigns at least some of the other force control values to specific intermediate locations of the physical setting range of the force control means.

REMARKS

Claims 1-42 are pending. Claims 1, 22-24, 30, 36-38, 40, and 42 have been amended. No new matter has been introduced. Reexamination and reconsideration of this application are respectfully requested.

In the July 12, 2006 Office Action, the Examiner rejected claims 1-42 under 35 U.S.C. §103(a) as being obvious given U.S. Patent No. 5,994,858 to Miura ("Miura") in view of U.S. Patent No. 6,799,140 to Bernard et al. ("Bernard"). This rejection is respectfully traversed.

The Examiner alleged that Miura discloses a method and apparatus for detecting an obstruction to a powered window movement, including initiating a learning mode, operating a motor, measuring at least one parameter that corresponds to the operation of the motor to provide a parameter value, and using the parameter value to establish a specific force control value to establish obstacle detection or reversing operation or stoppage or other types of operation. The Examiner acknowledged that "Miura does not disclose a user manipulability setting range for the force control." The Examiner alleged, however, that Bernard discloses a user manipulability/program module setting range for force control from measuring at least one parameter and using the parameter value to establish specific force control values. The Examiner further argued that:

> "It would have been obvious to one of ordinary skill in the art at the time of the invention to combine [the] Miura invention of detecting obstruction to powered window movement with Bernard's detector for monitoring rotation. The advantage of combining the two would provide a system for accurately detecting obstructions in a movable barrier in operation through the use of a parameter and force control."

[January 10, 2006 Office Action, P. 3.]

Independent claim 1 recites (with emphasis added):

> A method for use with a barrier controller having a physical user interface manipulable by a user **through a corresponding physical setting range having a first end, a second end, and at least one specific intermediate position between the first end and the second end**, comprising:
> initiating a learning mode;
> operating a motor;
> measuring at least one parameter that corresponds to operation of the motor to provide a parameter value;
> using the parameter value to establish a specific force control value;
> **assigning the specific force control value to a specific location of the physical setting range for the force control**.

Miura discloses a method and apparatus for detecting an obstruction to the movement of a powered window. Miura in particular discloses a switching unit (1) having a series of switches for controlling movement of the window. [Col. 6, lines 36-40.] The window is opened or closed by a rotating motor (4) as shown in FIG. 1. [Col. 7, lines 57-60.] The power window device shown in FIG. 1 utilizes motor load torque values as a parameter by which to detect obstructions to the motor-powered window movement. [Col. 8, lines 4-6.] In addition, the entire moveable range of the window (between the fully opened and fully closed positions) is divided into a plurality of moving areas on the basis of edge interval data arrival counts. A reference median and a reference allowable value of motor load torque are set for each of the divided moving areas of the window. [Col. 8, lines 8-14.] FIG. 3 shows typical reference medians and reference allowable values of motor load torque established for each of the divided moving areas. [Col. 8, lines 15-17.] These reference medians denote the torques needed to move the window with no substantial obstruction occurring to the window movement. [Col. 8, lines 35-38.] Miura further teaches that every time the window is moved, the existing reference medians are replaced by newly established reference medians – *i.e.*, "the reference medians are continuously learned." [Col. 8, lines 42-45.]

Bernard, on the other hand, discloses a detector 19 for monitoring rotation. FIG. 1 illustrates the detector 19 that monitors the passage frequency of a moving target such as a conveyor belt. The detector 19 includes a conversational means 30 connected to a microcontroller 20. [Col. 2, lines 53-54.] The conversational means 30 includes a light emitting diode 31 driven by microcontroller 20 and a push-button 32. [Col. 2, lines 55-57.] When in a learning mode, the operator can select an operating range M. [Col. 3, lines 20-21.] In the preferred embodiment, the operating range is expressed as a percentage of the normal passage frequency N and the operator may select the operating range by scrolling through a set of four predefined ranges through use of the push-button 32. [Col. 3, lines 26-35.]

Accordingly, Miura is directed to a system for continuously learning various parameters when a window is being closed. The system of Miura *automatically determines* these parameters without any interaction from the user being required or even possible. Miura effectively takes the human element out of the process when it comes to adjusting or calibrating his obstacle detection mechanism. Bernard, on the other hand, discloses a detector for monitoring rotation of a conveyor belt, where the passage frequency is determined in a learning mode and then the operating range of the rotation can be manually set by the user based on pre-defined percentages of the passage frequency.

Accordingly, neither Miura nor Bernard disclose use of a barrier controller having a **physical user interface manipulable by a user through a corresponding physical setting range having a first end, a second end, and at least one specific intermediate position between the first end and the second end**, or **assigning the specific force control value to a specific location of the user manipulable setting range for the force control.** Specifically, Muira discloses no such physical user interface manipulable by a user. Bernard does not make up for the deficiencies of Miura. Although Bernard does disclose allowing a user to scroll through several possible operating ranges via use of a push button, there is no teaching of a user interface **manipulable by a user through a corresponding physical setting range** having a

first end, a second end, **and at least one specific intermediate position between the first end and the second end**.

The only user interface manipulable by a user in Bernard is the push button itself. However, the push-button itself is not physically manipulable through a *corresponding physical setting range*. The push button itself has only two positions – open and closed. The push button therefore is not a **physical user interface manipulable by a user through a corresponding physical setting range** having a first end, a second end, **and at least one specific intermediate position between the first end and the second end**. That is, Bernard discloses a selectable setting range only, but not a manipulable physical user interface.

Accordingly, claim 1 and claims 2-29 depending therefrom directly or indirectly (through claim dependencies) distinguish over a combination of Miura and Bernard. Claims 30, 37, 38, and 40 contain distinguishing limitations similar to those of claim 1 discussed above. Therefore, claims 30, 37, 38, and 40 also distinguish over a combination of Miura and Bernard for at least the reasons discussed above with respect to claim 1. Claims 31-36, 39, and 41-42 depend from claims 30, 38, and 40, respectively, and therefore also distinguish over a combination of Miura and Bernard for at least the reasons discussed above with respect to claims 30, 38, and 40, respectively.

Therefore, for the reasons discussed above, it is respectfully submitted that the rejection of claims 1-42 under 35 U.S.C. §103(a) should be withdrawn.

Applicant believes that the foregoing amendments place the application in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Chicago telephone number (312) 577-7000 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,405,530 B2

APPLICATION NO.: 09/997,892

ISSUE DATE : July 29, 2008

INVENTOR(S) : Robert R. Keller

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 11, Column 7, Line 53; Change “substantially unloaded” to - - less than fully loaded - -;

Claim 28, Column 8, Line 60; Change “and” to - - an - -;

Claim 28, Column 8, Line 61; delete “substantially”;

Claim 28, Column 8, Line 60; Change “and” to - - an - -;

Claim 28, Column 8, Line 60; after “to” insert - - about - -;

Claim 32, Column 9, Line 24; Change “substantially unloaded” to - - less than fully loaded - -;

Claim 32, Column 9, Lines 24-25; Change “an ordinarily loaded” to - - a more than fully loaded - - ;

Claim 42, Column 10, Line 60; After “specific” insert - - intermediate - -.

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